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09/649,461	08/25/2000	Rick L. Allison	1322/51	7020

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DURHAM, NC 27707

EXAMINER

SHARMA, SUJATHA R

ART UNIT	PAPER NUMBER
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2681

17

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/649,461

Applicant(s)

ALLISON ET AL.

Examiner

Sujatha Sharma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36,39-49 and 52-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36,39-49 and 52-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Objections*

1. Claim 52 is objected to because of the following informalities: Claim 52 depends on claim 51, which has been canceled. Appropriate correction is required. Accordingly, claim 52 has not been further treated on the merits.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1,13,14,25-27, 34-36, 39,40,45-49 and 56 are rejected under 35 U.S.C. 102(b) as being anticipated by Granberg [US 6,101,387].

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Regarding claim 1,14,26,34,39,45, Granberg discloses a method and apparatus for providing notification of location-based services to mobile stations. Granberg further discloses a method of (a) receiving, at a telecommunications network element, a plurality of mobile call signaling messages at a telecommunication network element (MSC/HLR/VLR in figs 3-5)

(b) screening, at the telecommunications network element, mobile call signaling messages that relate to a change in location of a mobile subscriber; (See Fig.5, summary of invention, col. 6, lines 4- 17, col.7, lines 37-50).

(c) correlating the screened mobile call signaling messages based on at least one parameter (such as registration) in the mobile call signaling messages; (See Fig.5, summary of invention, col. 6, lines 4- 17, col.7, lines 37-50)

(d) generating a change in location indication message based on parameters extracted from the correlated mobile call signaling messages; (See summary of invention, col.5, line 42-col.6, line 17, col.6, lines 49-64).

(e) sending the change in location indication message to a short message service center (SMSC); (See summary of invention, col.5, line 42-col.6, line 17, col.6, lines 49-64).

(f) in response to receiving the change in location indication message by SMSC, generating an SMS message intended for the mobile subscriber; (See summary of invention, col.5, line 42-col.6, line 17, col.6, lines 49-64).

(g) sending the SMS message to the mobile subscriber automatically in response to the change in location of the subscriber. (See summary of invention, col.5, line 42-col.6, line 17, col.6, lines 49-64).

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Regarding claims 13,25,27,56 Granberg further discloses a method of correlating the screened mobile call signaling messages based on a dialogue ID (such as registration) in the mobile call signaling messages; (See Fig.5, summary of invention, col. 6, lines 4- 17, col.7, lines 37-50).

Regarding claims 35,36,46,47 Granberg further discloses the telecommunications network element to comprise of a signal transfer point / signaling gateway routing node. (14 in Fig.4).

Regarding claims 39,48, Granberg discloses the telecommunications network element to comprise of visitor location register (VLR). See Fig.4

Regarding claims 40,49, Granberg discloses the telecommunications network element to comprise of home location register (HLR). See Fig.4

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2-4 and 15-17, 57, 60-63, are rejected under 35 U.S.C. 103(a) as being unpatentable over Granberg [US 6,101,387] in view of Brown [EP 710 043 A1].

Regarding claims 2-4 and 15-17, Granberg as treated in claims 1,14,26, does not discloses a method of receiving call signaling message processed by means of MAP and updating location request.

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Brown further discloses a method of location updates using MAP protocol. Background of invention, summary of invention, column 4, line 65- column 5, line 12, column 6, lines 35-56 and column 7, lines 10-34.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Granberg with the above teaching from Brown in order to ensure up-to-date location information is maintained on mobile stations.

Regarding claims 60-63, Brown further teaches the method of call routing from a signal transfer point to appropriate destination based on call signaling messages. See column 5, line 49- column 6, line 10 and column 6, lines 50-56.

3. Claims 5-9, 18-22, 11, 12, 24, 25, 32, 41-44, 53-58, are rejected under 35 U.S.C. 103(a) as being unpatentable over Granberg [US 6,101,387] in view of Baker [US 6,505,046].

Regarding claims 5, 6, 18 and 19, Granberg does not disclose the message parameters to include HLR/VLR identification.

Baker further discloses HLR identification and VLR identification as one of the message parameters used to generate the change in location indication message. See column 8, lines 11-25.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Granberg with the above teaching from Baker in order to route the messages accurately to the proper destination terminal.

Regarding claims 7 and 20, Baker further discloses the message parameters to include mobile identification number (MIN). See column 8, lines 11-25.

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Regarding claims 8 and 21, Granberg discloses a method where the message parameters include an International mobile subscriber identification number (HLR stores the IMSI number and is used for call signaling). See col.5, lines 21-34, col.4, lines 35-39.

Regarding claims 9 and 22, Baker further discloses the message parameters to include mobile the MSCID. See column 8, lines 11-25.

Regarding claims 11, 12, 24 and 25, Baker further discloses the SMS message to be either an information message or a welcome message. See column 8, lines 30-36, lines 61-65.

Regarding claim 32, Granberg further discloses a method where the change in location of the subscriber is generated and sent to SMSC. (See summary of invention, col.5, line 42-col.6, line 17, col.6, lines 49-64).

Regarding claim 41, Baker further discloses that owners of the subscriber's HLR and the first network element are not the same. See Fig.3 and column 6, lines 1-61.

Regarding claims 53,54 Baker further discloses message-processing platform contained within the first network element WSN. See column 6, lines 1-61 and Fig.3

Regarding claims 42-44,55, Baker further discloses message-processing platform WSN associated with the first network element that is adapted to correlate and examine the parameters of the mobile call signaling message and generate a notification to the subscriber by means of SMS. See Fig.3 and column 6, line 1- column 7, line 50, column 8, lines 11-42.

4. Claim 10,23,28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Granberg [US 6,101,387] in view of Jung [DE 198 05 261 A].

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Regarding claims 10 and 23, Granberg does not disclose the date and time as one of the message parameters. See pages 3 and 6.

Jung teaches the use of date and time as one of the message parameters. See pages 3 and 6.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Granberg with the above teaching from Jung in order to ensure an accurate up-to-date location information is maintained on mobile stations.

Regarding claim 28, Jung further discloses a method to determine if the subscriber is in a foreign network based on HLRID and VLRID. See abstract.

Regarding claims 29 and 30, Jung further discloses a method where the correlation process for the mobile call signaling messages continues when subscriber roams in a foreign network and further the correlation process is stopped when the subscriber is not roaming in the foreign network. See pages 3-6.

Regarding claim 31, Jung further discloses a method of:

- (a) determining whether a mobile call location update record is active; see page 6.
- (b) in response to determining that a mobile call location update record is active for the message, storing the message in the mobile call location update record; see page 6.
- (c) in response to determining that a mobile call location update record is not active for the message, creating a new mobile call location update record and storing the message therein. see page 6.

5. Claims 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Granberg [US 6,101,387] in view of Baker [US 6,505,046] and further in view of Brown [EP 710 043 A1].

Regarding claim 57, Granberg and Baker disclose all the limitations as claimed.



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However, Granberg and Baker do not disclose a method of receiving call signaling message processed by means of MAP and generating a change in location indication message based on the correlated MAP messages.

Brown further discloses a method of location updates using MAP protocol. Background of invention, summary of invention, column 4, line 65- column 5, line 12, column 6, lines 35-56 and column 7, lines 10-34.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teaching from Brown to Granberg and Baker in order to ensure up-to-date location information is maintained on mobile stations.

Regarding claims 58 and 59, Baker further discloses message-processing platform (WSN associated with the first network element) that is adapted to send the change in location indication message to a short message service center/presence server. See Fig. 3 and column 6, line 1- column 7, line 50, column 8, lines 11-42.

6. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Granberg [US 6,101,387] in view of Brown [EP 710 043 A1].

Granberg as treated in claim 26, does not disclose a method where the location update record is discarded after failing to produce call signaling messages to complete update location record in a given time.

Brown discloses a method where the location update message is sent periodically within a pre-determined amount of time. See page 7, lines 27-34.

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Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Granberg with the above teaching from Brown in order to ensure up-to-date location information is maintained on mobile stations.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chern [US 6,381,465] discloses a system and method for attaching an advertisement to an SMS message for wireless transmission.

Larkins [US 6,151,505] discloses a system and method for reporting the location of telecommunications unit to an authorized telecommunications unit.

Tso [US 6,047,327] discloses a system for distributing electronic information to targeted group of users.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 703-305-5298. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 703-305-4778. The fax phone numbers for the organization where this application or proceeding is assigned and for all official communications is 703-872-9314.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.

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Sujatha Sharma  
July 17, 2003

  
**TEMICA M. DAVIS**  
**PATENT EXAMINER**